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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,256	02/11/2004	Soon-Phil Lee	P57025	9892
<div>7590 Robert E. Bushnell Suite 300 1522 K Street, N.W. Washington, DC 20005</div>			<div>EXAMINER VO, NGUYEN THANH</div>	
			<div>ART UNIT 2618</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 05/30/2007</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/775,256

Applicant(s)

LEE ET AL.

Examiner

Nguyen Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6-16 and 19-33 is/are rejected.
- 7) ☒ Claim(s) 2-5,17 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 28-32 are rejected under 35 U.S.C. 101 because:

Regarding claims 28-32, they are computer-processing related claims. However, the language "A computer-readable medium having computer-executable instructions" is not acceptable. In order to overcome this rejection, it is suggested that the language "A computer-readable medium having computer-executable instructions" should be changed to --A computer-readable medium having stored thereon computer-executable instructions--.

***Information Disclosure Statement***

3. The information disclosure statement filed 08/31/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

In this case, a copy of the cited Office action from the Japanese Patent Office is not provided.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6-9, 10-12, 19-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 6, the recitation "said base station controller of the public mobile communication network" at lines 16-17 lacks clear antecedent basis. It is suggested that it should be changed to --a base station controller of the public mobile communication network--.

As to claim 10, the recitation "at least one of said second wired terminal" at line 11 lacks clear antecedent basis. In addition, the recitation "said base station controller of the public mobile communication network" at lines 14-15 lacks clear antecedent basis. It is suggested that it should be changed to --a base station controller of the public mobile communication network--.

As to claim 11, the recitation "the second wired terminal" at line 7 lacks clear antecedent basis.

As to claim 19, the recitation "said public and private mobile communication terminal subscriber" at lines 5-6 lacks clear antecedent basis.

As to claim 20, the recitation "the multiple terminating services" at lines 5-6 lacks clear antecedent basis.

As to claim 24, the recitation "said base station controller" at line 5 lacks clear antecedent basis.

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As to claim 25, the recitation "the virtual wired phone number" at lines 6-7 lacks clear antecedent basis.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 13, 28-29, 33 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-37 of copending Application No. 10/755,172. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-37 of the above copending Application No. 10/755,172 encompass claims 13, 28-29, 33 of the present application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 13, 15-16, 28-29, 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Mukerjee (US 6,405,041 B1, cited by examiner).

As to claim 1, Mukerjee discloses in figure 2 a system for interconnecting wired and wireless phone services, comprising at least one of first wired terminals 150; public and private mobile communication terminals (see the public terminal 170 and private terminal 175) being registered in public and private mobile communication networks (see the public network 130 and private network as disclosed at column 3 lines 59-67); a private base station 162 constructing a wireless communication path with an arbitrary mobile communication terminal in a service area of said private base station and manages wireless resources for the mobile communication; and a wired and wireless interconnecting apparatus (see the unit including interface switch 161 and controller 165 in figure 2) being connected to a public phone network 130 and said private base station 162, constructing an internal network formed of said first wired terminals 150 and said public and private mobile communication terminals (see the public terminal 170 and private terminal 175) to endow each terminal with a wired phone number (see column 5 line 1 to column 6 line 24), making a call to a wired terminal when there is a call to an arbitrary first wired terminal, and performing a switching function to simultaneously

make a call to said public and private mobile communication terminal assigned to said first wired terminal (see column 5 line 1 to column 6 line 24).

As to claim 13, Mukerjee discloses a method for processing a call in a system for interconnecting wired and wireless phone services comprising at least one of first wired terminals 150 (see figure 2), public and private mobile communication terminals (see the public terminal 170 and private terminal 175) registered in public mobile communication network and private mobile communication network (see the public network 130 and private network as disclosed at column 3 lines 59-67), a private base station 162 to perform a wireless communication with the public and private mobile communication terminal, a wired and wireless interconnecting apparatus (see the unit including interface switch 161 and controller 165 in figure 2) to perform an interconnection between the first wired terminals and the public and private mobile communication terminal through the private base station 162, the method comprising enabling said wired and wireless interconnecting apparatus to make a call to the wired terminal when an arbitrary first wired terminal is called, and to be switched in order to make a call to said public and private mobile communication terminals assigned to the wired terminals simultaneously (see column 5 line 1 to column 6 line 24); enabling said private base station to be broadcasted in its wireless area in order to make a call to the corresponding public and private mobile communication terminal according to the switching of said wired and wireless interconnecting apparatus (see column 5 line 1 to column 6 line 24); and enabling said wired and wireless interconnecting apparatus to make a call to a responding terminal among the called first wired terminal or the public

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and private mobile communication terminals and to stop the call made to the terminal which does not make a response (see column 5 lines 20-22; column 7 lines 54-61).

As to claim 15, Mukerjee discloses an apparatus, comprising an interconnecting unit (see the unit including interface switch 161 and controller 165 in figure 2) being connected to a public network 130 and a private base station 162, constructing an internal network formed of a plurality of first wired terminals (120, 150) and a plurality of public and private mobile communication terminals (170, 175) to endow each terminal with a wired phone number (see column 5 lines 3-8), making a call to a wired terminal when there is a call to an arbitrary first wired terminal, and performing a switching function to simultaneously make a call to said public and private mobile communication terminal assigned to said first wired terminal (see column 5 line 1 to column 6 line 24), said private base station 162 constructing a wireless communication path with an arbitrary mobile communication terminal in a service area of said private base station and manages wireless resources for the mobile communication, said public and private mobile communication terminals being registered in public and private mobile communication networks (see column 5 line 1 to column 6 line 24; column 7 lines 1-12).

As to claim 16, see Mukerjee, column 4 lines 22-34; column 5 line 1 to column 6 line 24).

As to claims 28 and 33, they are rejected for similar reasons as set forth in claim 13 above.

As to claim 29, see Mukerjee, database 167 and column 5 lines 3-22.



***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 14, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukerjee.

As to claim 14, Mukerjee discloses searching for a database 167 and determining whether the called phone number is said first wired terminal; searching for the database and determining whether the corresponding phone number is established for a multiple terminating function, when the called phone number is said first wired terminal as a result of the determination; making a call to said first wired terminal, searching for the database, and obtaining information to make a call to the corresponding public and private mobile communication terminal, when the multiple

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terminating function is established as a result of the determination; and requesting a call of the corresponding public and private mobile communication terminal to said private base station using the information obtained in the database (see column 5 line 1 to column 6 line 25). Mukerjee, however, discloses one database 167 instead of three databases as claimed. Those skilled in the art, however, would have recognized that the above difference would not render the claim patentable over Mukerjee because it would merely depend on how many databases one would like to use in his system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use three databases in Mukerjee, in order to reducing the searching time in each database.

As to claims 30-32, they are rejected for similar reasons as set forth in claim 14 above.

***Allowable Subject Matter***

13. Claims 2-5, 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 2-5, the prior art of record fail to disclose or render obvious the combination of a wired exchange, a mobile gateway, a private base station controller as specified in claim 2.

As to claims 17-18, the prior art of record fail to disclose or render obvious that a subscriber is endowed with an arbitrary wired phone number, a first phone number, a second phone number and a third virtual phone number as specified in claim 17.

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14. Claims 6-12, 19-27 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

As to claims 6-9, the prior art of record fail to disclose or render obvious the combination of a wired exchange, a mobile gateway and a private base station controller as specified in claim 6.

As to claims 10-12, the prior art of record fail to disclose or render obvious the combination of a group exchange, and a private base station controller as specified in claim 10.

As to claims 19-27, the prior art of record fail to disclose or render obvious a private base station controller and its function as specified in claim 19.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim (US 2004/0198355 A1); Cyr (US 6,223,055 B1); Booton (US 6,337,857 B1); McIntosh (US 6,658,259 B2); O'Neil (5,963,864); Kil (US 6,985,723 B2); Forte (US 2002/0019246 A1) and Bedingfield (US 2004/0110465 A1) disclose public and private mobile communication systems.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful; the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nguyen Vo  
Primary Examiner  
Art Unit 2618

*Nguyen Vo*  
5-27-07

**NGUYEN T. VO**  
**PRIMARY EXAMINER**